



# **NASA Glenn Research Center (GRC)**

## ***Upcoming Architect & Engineering (A-E) Contract Opportunities***

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## **Outline**

- ***Some Basics for Our Discussion***
- ***Types of A-E Services Required by GRC***
- ***A-E Skill Sets Required by GRC***
- ***Current Design Focus***
- ***Procurement of A-E Services***
- ***Current & Near-Term Opportunities***



# Some *Basics* for Our Discussion

- ***NASA Classifies Construction Projects as Follows:***
  - **Up to \$499K Construction Cost:** Locally-Funded Projects
  - **\$500K to \$4,999K Construction Cost:** Minor Construction of Facilities (CoF) Projects
  - **\$5,000K and Greater Construction Cost:** Discrete CoF Projects
  - **Demolition Projects:** Activities that result in a reduction in the Center's Real Property Inventory



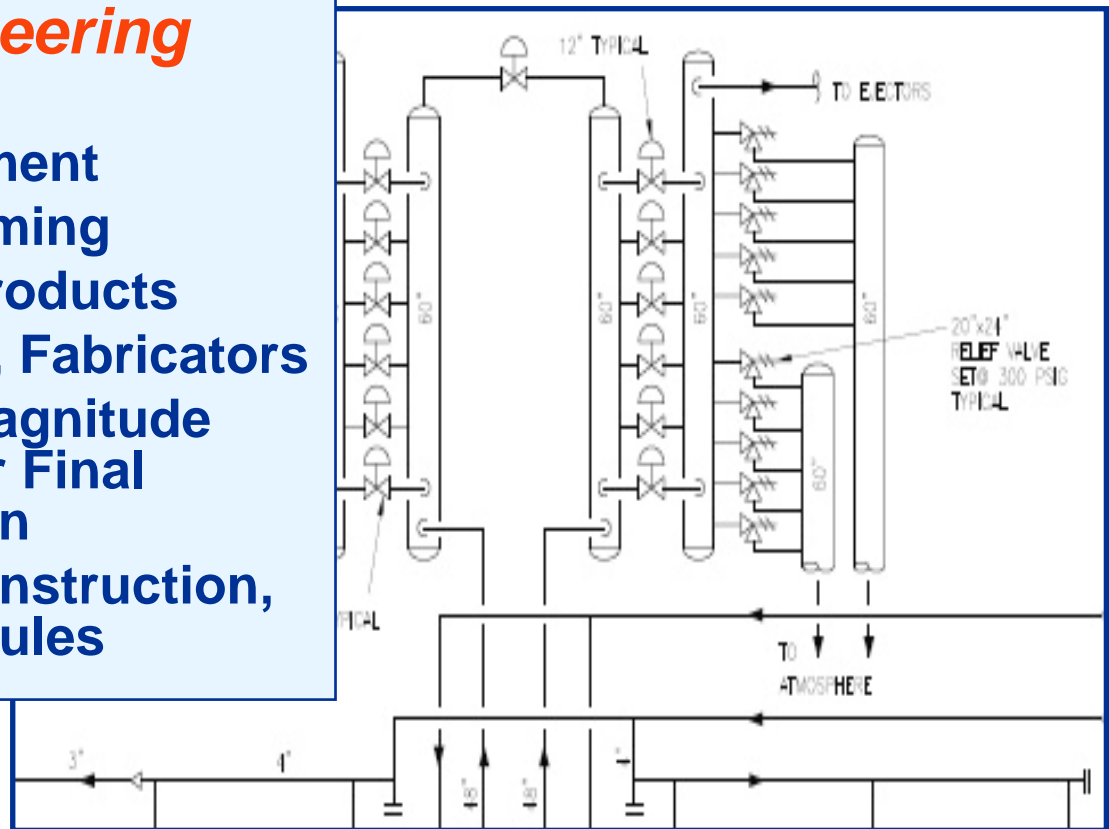


# Some *Basics* for Our Discussion

- **Typical Methods for Designing Projects for Construction:**
  - Locally Funded Projects: In-house staff (small projects), outside A-E firms (larger projects)
  - Minor CoF Projects: In-house staff (very few), outside A-E firms
  - Discrete CoF Projects: Outside A-E firms
  - Demolition Projects: In-house staff, outside A-E firms

# Types of A-E Services Required by GRC

- **Engineering Studies & Preliminary Engineering Reports**
  - Concept Development
  - Building Programming
  - Identification of Products
  - Potential Vendors, Fabricators
  - Rough Order of Magnitude Cost Estimates for Final Design, Fabrication
  - Rough Design, Construction, Fabrication Schedules





# ***Types of A-E Services Required by GRC***

- ***Final Design***

- **Field Investigation & Verification**
- **Calculations**
- **Code Compliance**
- **Engineering Cost Estimate**
- **Detailed Construction Schedule**
- **Deliverables for Invitation for Bid Construction**
  - **Construction Specifications**
  - **Construction Drawings (Multi-Discipline including Architectural, Environmental, Civil, Structural, Mechanical, Electrical)**



# *Types of A-E Services Required by GRC*

- ***Services During Construction***
  - Submittal & Shop Drawing Review
  - Field Issue Resolution





# Types of A-E Services Required by GRC



## • Master Planning Services



**Lewis Field Campus  
Approved Master Plan  
Concept**





# ***A-E Skill Sets Required by GRC***

## ***• A-E Services for “Bricks & Mortar” and Standard Utility Systems***

- Civil Site Work
- Roadway and Parking
- Structural Steel
- Building Architectural
- Roof Replacement & Masonry Repair
- Underground Domestic Water
- Sewer Systems (Sanitary, Storm)
- Underground Natural Gas Systems
- Building HVAC
- Building Plumbing Systems
- Boiler and Steam Distribution Systems
- Chillers and Chilled Water Distribution Systems
- Fire Suppression Systems
- High voltage Electrical work (Substations, Switchgear, Underground Duct Banks)
- Low Voltage Electrical Power Distribution
- Building Lighting Systems
- Fire Detection Systems
- Emergency & Exit Lighting
- Lightning Protection
- Grounding Systems



# *A-E Skill Sets Required by GRC*

- **A-E Services for Process System Design**
  - Piping Flexibility Analysis and Support System Design
  - Piping Flow Analysis
  - High Pressure Piping
  - Pressure Vessel Design
  - Cryogenic System Design
  - Fuel System Design
  - Instrumentation and Controls Including PLCs







# ***A-E Skill Sets Required by GRC***

- ***A-E Services for the Design of One-of-a-Kind Aero-Space Ground Test Facilities***
  - **Computational Fluid Dynamic (CFD) Analysis**
  - **Finite Element Analysis**
  - **Component Fabrication & Assembly Drawings**
  - **Large Horsepower Motors**
  - **Vacuum Systems & Tanks**
  - **Thermal Simulation Systems**







# Current Design Focus

- ***New Building & Existing Building Rehabilitation Emphasis***
  - **Executive Order EO 13423:**  
***“Ensure that new construction & major renovation of agency buildings comply with the guiding principles in the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding”***
  - **NASA Policy: Leadership in Energy & Environmental Design (LEED) Silver Certification for All Projects**
- ***Begin to Employ Building Information Modeling (BIM) Concepts in Designs***



# ***Procurement of A-E Services***

- ***How Does NASA Obtain A-E Services?***
  - **Basic Requirements Identified in the Federal Acquisition Regulation (FAR), Subpart 36.6 Architect-Engineer Services**
    - **Selection Criteria:**
      - Professional Qualifications***
      - Specialized Experience & Technical Competence***
      - Capacity to Accomplish the Work***
      - Past Performance on Contracts***
      - Location in the General Geographic Area***
    - **Format of Evaluation Board, Selection Authority, etc.**



# ***Procurement of A-E Services***

- ***How Does NASA Obtain A-E Services?***
  - ***Additional Requirements Found in NASA FAR Supplement, Part 1836.6 Architect-Engineer Services***
    - ***More Specifics on Selection Criteria, Format of Evaluation Boards, Selection Authority, Short Selection Process for Contracts not to Exceed the Simplified Threshold Limit, Selection of A-E for Master Planning, Collection of Data On & Appraising Firms' Qualifications, Forms for Use in Contracting for A-E Services***





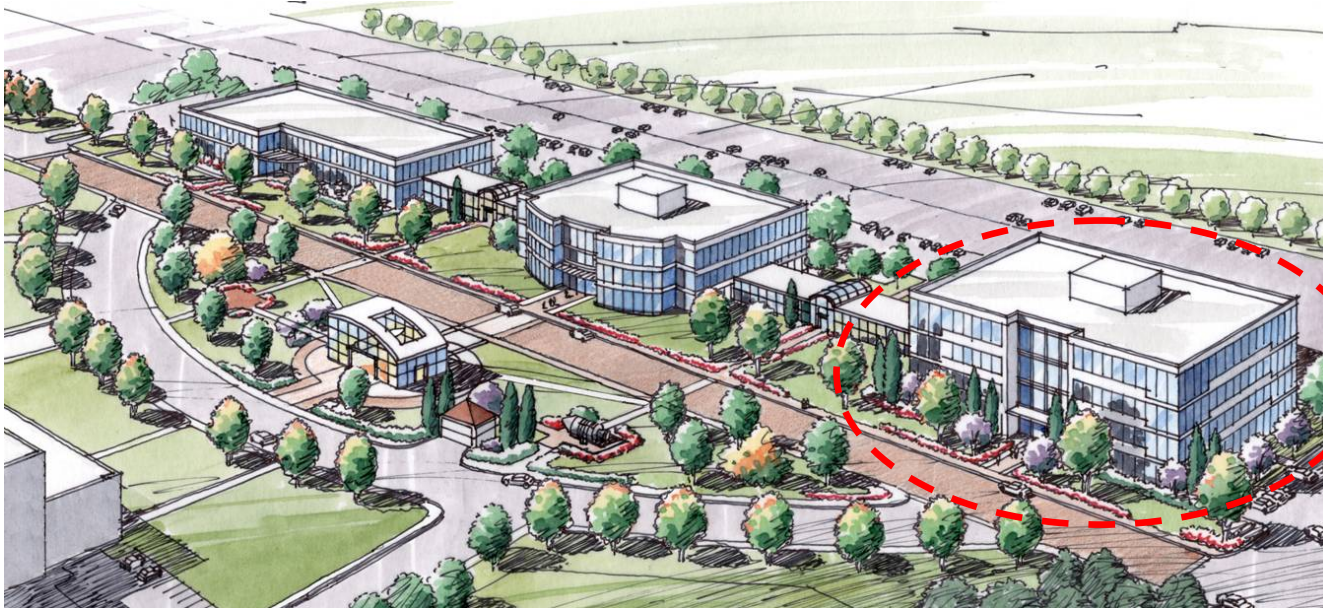
# ***Procurement of A-E Services***

- ***Advertisement of A-E Services:***
  - All Government procurements that are \$25,000 and over are advertised at:  
 **[www.fedbizopps.gov](http://www.fedbizopps.gov)**
  - Search on A-E Services

# Current & Near-Term Opportunities



- **Final Design Services for the NASA GRC Centralized Office Building**
  - Currently Advertised on [www.fedbizopps.gov](http://www.fedbizopps.gov)
  - Standard Form SF-330 Due on May 20, 2008





# ***Current & Near-Term Opportunities***

- ***Current A-E Services Contracts Expiring***
  - ***Currently Have Access to Three A-E Firms (Indefinite Quantity Contracts)***
  - ***Number of A-E Firms for Follow-on Services TBD***
  - ***Will Require All Skill Sets Mentioned in This Presentation***
  - ***Emphasis on LEED Design Capability***
  - ***Anticipated Date for Advertisement: August or September, 2008***
- ***Current Master Planning Contract Will Expire October, 2009***
  - ***Anticipated Date for Advertisement: June or July, 2009***



# Questions & Answers



**Glenn Research Center**

